

ATTORNEY DOCKET NO. 14114.0349U2
SERIAL NO. 09/758,308

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (original) An isolated peptide comprising an antigenic epitope of an HCV protein, wherein the protein is selected from the group consisting of core protein, NS3 protein, NS4 protein and NS5a protein.
2. (original) The peptide of Claim 1, wherein the protein is the core protein and the antigenic epitope comprises amino acid residues 1-91 of the HCV polyprotein (SEQ ID NO:1).
3. (currently amended) The mosaic polypeptide of Claim 10, wherein ~~the protein is the NS3 protein and~~ the antigenic epitope comprises amino acid residues 1471-1573 of the HCV polyprotein set forth in (SEQ ID NO:2) SEQ ID NO:2.
4. (original) The peptide of Claim 1, wherein the protein is the NS4 protein and the antigenic epitope comprises amino acid residues 1789-1867 of the HCV polyprotein (SEQ ID NO:3).
5. (original) The peptide of Claim 1, wherein the protein is the NS4 protein and the antigenic epitope comprises amino acid residues 1916-1948 of the HCV polyprotein (SEQ ID NO:4).
6. (original) The peptide of Claim 1, wherein the protein is the NS5a protein and the antigenic epitope comprises amino acid residues 2322-2423 of the HCV polyprotein (SEQ ID NO:5).
- 7-8. (canceled)

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9. (previously presented) A mosaic polypeptide comprising an isolated antigenic epitope of HCV core protein comprising amino acid residues 1-91 of the HCV polyprotein, wherein the mosaic polypeptide is not the HCV polyprotein.

10. (previously presented) A mosaic polypeptide comprising an isolated antigenic epitope of HCV NS3 protein comprising amino acid residues 1471-1573 of the HCV polyprotein, wherein the mosaic polypeptide is not the HCV polyprotein.

11. (previously presented) A mosaic polypeptide comprising an isolated antigenic epitope of HCV NS4 protein comprising amino acid residues 1789-1867 of the HCV polyprotein, wherein the mosaic polypeptide is not the HCV polyprotein.

12. (previously presented) A mosaic polypeptide comprising an isolated antigenic epitope of HCV NS4 protein comprising amino acid residues 1916-1948 of the HCV polyprotein, wherein the mosaic polypeptide is not the HCV polyprotein.

13. (previously presented) A mosaic polypeptide comprising an isolated antigenic epitope of HCV NS5a protein comprising amino acid residues 2322-2423 of the HCV polyprotein, wherein the mosaic polypeptide is not the HCV polyprotein.

14. (previously presented) An assay for detecting HCV in a biological sample comprising combining the biological sample with an HCV reagent for a sufficient amount of time under conditions to form an analyte-antibody complex and detecting the complex, wherein the HCV reagent is selected from the group consisting of an antigenic epitope of an HCV core, NS3, NS4 or NS5a protein; a mosaic polypeptide comprising one or more antigenic epitopes of an HCV core, NS3, or NS4 protein; an antibody specifically immunoreactive with an antigenic epitope of

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an HCV core, NS3, NS4 or NS5a protein; and an antibody specifically immunoreactive with a mosaic polypeptide comprising one or more antigenic epitopes of an HCV core, NS3, or NS4 protein,

wherein detection of the analyte-antibody complex indicates that the biological sample contains HCV.

15. (previously presented) The assay of Claim 14, wherein the mosaic polypeptide further comprises one or more antigenic epitopes of the HCV NS5a protein.

16. (previously presented) The assay of Claim 14, wherein the antigenic epitope of the core protein comprises amino acid residues 1-91 of the HCV polyprotein (SEQ ID NO:1).

17. (previously presented) The assay of Claim 14, wherein the antigenic epitope of the NS3 protein comprises amino acid residues 1471-1573 of the HCV polyprotein (SEQ ID NO:2).

18. (previously presented) The assay of Claim 14, wherein the antigenic epitope of the NS4 protein comprises amino acid residues 1789-1867 of the HCV polyprotein (SEQ ID NO:3).

19. (previously presented) The assay of Claim 14, wherein the antigenic epitope of the NS4 protein comprises amino acid residues 1916-1948 of the HCV polyprotein (SEQ ID NO:4).

20. (previously presented) The assay of Claim 14, wherein the mosaic polypeptide further comprises a second antigenic epitope of the NS4 protein, which comprises amino acid residues 1916-1948 of the HCV polyprotein (SEQ ID NO:4).

21. (previously presented) The assay of Claim 14, wherein the antigenic epitope of the NS5a protein comprises amino acid residues 2322-2423 of the HCV polyprotein (SEQ ID NO:5).

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22. (previously presented) The assay of Claim 15, wherein the antigenic epitope of the NS5a protein comprises amino acid residues 2322-2423 of the HCV polyprotein (SEQ ID NO:5).

23. (previously presented) An immunogenic composition comprising an immunogenic amount of an isolated peptide comprising an antigenic epitope of an HCV protein, wherein the protein is selected from the group consisting of core protein, NS3 protein, NS4 protein and NS5a protein and a pharmaceutically acceptable carrier.

24. (previously presented) An immunogenic composition comprising an immunogenic amount of a mosaic polypeptide comprising one or more antigenic epitopes of the HCV core protein, NS3 protein, and NS4 protein and a pharmaceutically acceptable carrier.

25. (previously presented) The immunogenic composition of Claim 24 wherein the mosaic polypeptide further comprises one or more antigenic epitopes of the HCV NS5a protein.

26-31. (canceled)

32. (previously presented) A mosaic polypeptide comprising at least two isolated antigenic epitopes of HCV wherein the isolated antigenic epitopes comprise amino acid sequence selected from the group consisting of amino acid residues 1-91, 1471-1573, 1789-1867, 1916-1948 and 2322-2423 of the HCV polyprotein, wherein the mosaic polypeptide is not the HCV polyprotein.

33. (previously presented) The mosaic polypeptide of claim 32, wherein the isolated antigenic epitopes comprise sequences selected from the group consisting of SEQ ID NOS:1-5.

34. (previously presented) The mosaic polypeptide of claim 32, wherein the mosaic

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consisting of amino acid residues 1-91, 1471-1573, 1789-1867, 1916-1948 and 2322-2423.

35. (previously presented) The mosaic polypeptide of claim 34, wherein the isolated antigenic epitopes comprise sequences selected from the group consisting of SEQ ID NOS:1-5.

36. (previously presented) The mosaic polypeptide of claim 34, wherein the mosaic polypeptide comprises at least four isolated antigenic epitopes of HCV selected from the group consisting of amino acid residues 1-91, 1471-1573, 1789-1867, 1916-1948 and 2322-2423.

37. (previously presented) The mosaic polypeptide of claim 36, wherein the isolated antigenic epitopes comprise sequences selected from the group consisting of SEQ ID NOS:1-5.



38. (previously presented) A mosaic polypeptide comprising an isolated antigenic epitope of HCV comprising amino acid sequence selected from the group consisting of amino acid residues 1-91, 1471-1573, 1789-1867, 1916-1948 and 2322-2423 of the HCV polyprotein and one or more additional epitopes of the HCV core protein, NS3 protein and NS4 protein, wherein the mosaic polypeptide is not the HCV polyprotein.

39. (previously presented) The mosaic polypeptide of claim 38, wherein the amino acid sequence is selected from the group consisting of SEQ ID NOS:1-5.

40. (previously presented) A mosaic polypeptide comprising an isolated antigenic epitope of HCV comprising amino acid residues of the HCV polyprotein wherein the amino acid sequence is selected from the group consisting of SEQ ID NOS:1-5 and wherein the mosaic polypeptide is not the HCV polyprotein.